

# Consumer Electronics: 2002

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## Current Industrial Reports

Current data are released electronically on Internet for all individual surveys as they become available. Use: <http://www.census.gov/mcd/>. Individual reports can be accessed by choosing "Current Industrial Reports (CIR)," clicking on "CIRs by Subsector;" then choose the survey of interest. Follow the menu to view the PDF file or to download the worksheet file (WK format) to your personal computer.

These data are also available on Internet through the U.S. Department of Commerce and STAT-USA by subscription. The Internet address is: [www.stat-usa.gov/](http://www.stat-usa.gov/). Follow the prompts to register. Also, you may call 202-482-1986 or 1-800-STAT-USA, for further information.

**SUMMARY OF FINDINGS.** During 2002, the total value of shipments for consumer electronics was \$7.4 billion, an increase of 2.4 percent from the 2001 value of \$7.2 billion. Automotive audio equipment increased 6.7 percent to \$1.2 billion in 2002. Shipments of television receivers increased 8.1 percent to \$3.3 billion in 2002, from \$3.0 billion in 2001. All other consumer audio and video equipment shipments increased 1.7 percent to \$1.3 billion in 2002. Loudspeakers, microphones, kits, and public address systems decreased 10 percent from \$1.7 billion shipped in 2001.

For general CIR information, explanation of general terms and historical note, see the appendix.

Address inquiries concerning these data to Consumer Goods Industries Branch, Manufacturing and Construction Division (MCD), Washington, DC 20233-6900, or call Stephanie Angel, 301-763-4698.

For mail or fax copies of this publication, please contact the Information Services Center, MCD, Washington, DC 20233-6900, or call 301-763-4673.

# U S C E N S U S B U R E A U

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U.S. Department of Commerce  
Economics and Statistics Administration  
U.S. CENSUS BUREAU



**Table 1. Value of Shipments of Consumer Electronics by Selected Products: 1997 to 2002**  
**[Millions of dollars]**

<b>Product code</b>	<b>Product description</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>	<b>1998</b>	<b>1997</b>
	<b>Consumer electronics.....</b>	<b>7,364.5</b>	<b>7,193.9</b>	<b>7,666.9</b>	<b>8,185.6</b>	<b>7,834.7</b>	<b>8,178.4</b>
<b>3343101</b>	<b>Automotive audio equipment (except speakers).....</b>	<b>1,235.4</b>	<b>1,157.5</b>	<b>1,024.9</b>	<b>1,063.3</b>	<b>941.5</b>	<b>933.3</b>
<b>3343102</b>	<b>Household television receivers, including combinations.....</b>	<b>3,284.9</b>	<b>3,039.0</b>	<b>3,409.1</b>	<b>3,950.8</b>	<b>3,940.2</b>	<b>4,367.1</b>
<b>3343103</b>	<b>Other consumer audio and video equipment (except speakers) 1/.....</b>	<b>1,302.1</b>	<b>1,280.0</b>	<b>1,206.2</b>	<b>821.7</b>	<b>827.2</b>	<b>644.5</b>
<b>3343104</b>	<b>Speakers, microphones, and home-type electronic kits.....</b>	<b>1,542.1</b>	<b>1,717.4</b>	<b>2,026.7</b>	<b>2,349.8</b>	<b>2,125.8</b>	<b>2,233.5</b>

1/Product code 334419E101 is not included in the total for 3343103.

Table 2. Quantity and Value of Shipments of Consumer Electronics: 2002 and 2001  
[Quantity in number of units. Value in thousands of dollars]

Product code	Product description	No. of cos.	2002		2001	
			Quantity	Value	Quantity	Value
3343101	Automotive audio equipment, excluding speakers.....	(NA)	8,122,166	1,235,357	10,058,536	1,157,470
3343101101	AM-FM radios with tape/compact disc player combinations.....	7	5,630,146	946,143	5,347,154	856,201
3343101104	Other automotive audio equipment, including equalizers and amplifiers, excluding speakers.....	16	2,492,020	a/ 289,214	c/ 4,711,382	r/ 301,269
3343102	Household television receivers, including combination models.....	(NA)	8,811,296	3,284,882	8,264,318	3,038,969
3343102101	Projection television.....	7	1,136,146	1,336,908	944,793	1,144,441
	Other CRT-based color television:					
3343102104	50 cm (19.7 inches) and under 1/.....	1	(D)	(D)	(D)	(D)
3343102107	Over 50 cm (19.7 inches) 1/.....	7	(D)	(D)	(D)	(D)
3343102111	Other household television receivers.....	-	-	-	-	-
3343103	Other consumer audio and video equipment, excluding speakers 2/.....	(NA)	5,008,615	1,302,103	4,753,854	1,280,020
3343103101	Compact and video disc players 3/.....	7	(D)	(D)	(D)	(D)
3343103107	Power amplifiers, including preamplifiers.....	33 b/	301,287	b/ 147,978	b/ 368,826	a/ r/ 157,265
3343103111	Receivers, tuners, and other consumer audio equipment incorporating radio reception 3/.....	8	(D)	(D)	(D)	(D)
334419E101	Earphones, headsets, and phonograph cartridges, pickups, needles, and styli 2/.....	12	(X) c/	73,288	(X) r/	86,854
3343103104	Equalizers.....	9 a/	25,817	a/ 1,235	a/ 25,793	c/ r/ 1,019
3343103114	Other consumer audio and video equipment (except speakers) 3/.....	28	(D)	(D)	(D)	(D)
3343104	Speakers, microphones, and home-type electronic kits.....	(NA)	43,867,942	1,542,089	48,504,938	1,717,372
3343104101	Single loudspeakers mounted in an enclosure.....	26	1,929,741	a/ 261,897	b/ r/ 1,785,257	266,342
3343104104	Multiple loudspeakers mounted in an enclosure....	40 a/	2,284,136	a/ 383,239	a/ r/ 3,029,708	a/ 462,214
3343104107	Other loudspeakers, including unmounted speakers sold separately.....	43	35,865,683	a/ 552,357	b/ 40,396,682	a/ 629,787
3343104111	Microphones.....	12	3,030,375	193,801	r/ 2,295,278	r/ 186,581
3343104114	Home-type electronic kits designed for consumer assembly 4/.....	1	(D)	(D)	(D)	(D)
3343104117	Public address systems, including musical instrument amplifiers 4/.....	24	(D)	(D)	(D)	(D)

- Represents zero. D Withheld to avoid disclosing data for individual companies. r/Revised by 5 percent or more from previously published data. X Not applicable.

1/Product codes 3343102104 and 3343102107 have a combined total of 7,675,150 for quantity and \$1,947,974 for value for 2002, and 7,319,525 for quantity and \$1,894,528 for value for 2001.

2/Product code 334419E101 is not included in the total for 3343103100.

3/Product codes 3343103101, 3343103111, and 3343103114 have a combined total of 4,659,952 for quantity and \$1,149,749 for value for 2002 and 4,359,235 for quantity and \$1,121,736 for value for 2001.

4/Product codes 3343104114 and 3343104117 have a combined total of 758,007 for quantity and \$150,795 for value for 2002 and 998,013 for quantity and \$172,448 for value for 2001.

Note: Percent of estimation for each item is indicated as follows: a/10 to 25 percent of this item has been estimated. b/26 to 50 percent of this item has been estimated. c/Over 50 percent of this item has been estimated.

Table 3. Shipments, Exports, and Imports of Consumer Audio and Video Electronics: 2002  
[Quantity in number of units. Value in thousands of dollars]

Product code	Product description	Manufacturers' shipments		Exports of domestic merchandise 1/		Imports for consumption 2/	
		Quantity	Value f.o.b. plant	Quantity	Value at port	Quantity	Value 3/
3343101101, 104	Automotive audio equipment.....	8,122,166	1,235,357	3,234,253	558,303	29,602,439	3,183,585
3343102101, 104, 107, 111	Household television receivers.....	8,811,296	3,284,882	306,038	105,964	29,817,968	6,480,435
3343103101, 104, 107, 111, 114	Coin operated audio equipment, power amplifiers, audio tape recorders and players, compact and video disc players, equalizers, and other consumer audio and video equipment, excluding speakers.....	5,008,615	1,302,103	4,306,696	690,634	92,858,021	5,777,518
3343104101	Single loudspeakers mounted in an enclosure.....	1,929,741	a/ 261,897	5,255,204	115,934	38,462,980	392,385
3343104104	Multiple loudspeakers mounted in an enclosure.....	2,284,136	383,239	1,067,025	99,414	18,198,002	486,782
3343104107	Other loudspeakers.....	35,865,683	552,357	33,290,827	206,025	-	-
3343104111	Microphones.....	3,030,375	193,801	(X)	48,745	-	-
3343104114, 117	Home-type electronic kits designed for consumer assembly and public address systems, including musical instrument amplifiers.....	758,007	150,795	1,296,222	93,020	8,506,577	713,808
334419E101	Earphones, headsets, and phonograph cartridges, pickups, needles, and styli.....	(X)	73,288	8,198,092	75,358	168,953,000	479,062

- Represents zero. X Not applicable.

1/Source: Census Bureau report EM 545, U.S. Exports.

2/Source: Census Bureau report IM 145, U.S. Imports for Consumption.

3/Dollar value represents the c.i.f. (cost, insurance, and freight) value at the first point of entry in the United States plus U.S. import duties.

Note: Percent of estimation for each item is indicated as follows: a/10 to 25 percent of this item has been estimated. b/26 to 50 percent of this item has been estimated. c/Over 50 percent of this item has been estimated.

Table 4. Comparison of North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes and HTSUSA Import Codes: 2002

Product code	Product description	Export code 1/	Import code 2/
3343101101, 104	Automotive audio equipment.....	8519.93.4000 8527.21.0000 8527.29.0000	8519.93.4000 8527.21.1005 8527.21.1015 8527.21.1020 8527.21.1030 8527.29.4000 8527.29.8020 8527.29.8060
3343102101, 104, 107, 111	Household television receivers.....	8528.12.6010 8525.12.6040 8528.12.3000	8528.12.0400 8528.12.0800 8528.12.1200 8528.12.1600 8528.12.2010 8528.12.2012 8528.12.2014 8528.12.2015 8528.12.2410 8528.12.2420 8528.12.2800 8528.12.3205 8528.12.3224 8528.12.3228 8528.12.3230 8528.12.3235 8528.12.3238 8528.12.3250 8528.12.3290 8528.12.3600 8528.12.4000 8528.12.4400 8528.12.4800 8528.12.5200 8528.12.5600 8528.12.6200 8528.12.6400 8528.12.6800 8528.12.7200 8528.12.7600 8528.12.8000 8528.12.8400 8528.12.8800 8528.13.0005 8528.13.0010 8528.13.0020 8528.13.0025 8528.13.0030 8528.13.0035 8528.13.0040 8528.13.0045 8528.13.0050 8528.13.0075
3343103101, 104, 107, 111, 114	Coin operated audio equipment, power amplifiers, audio tape recorders and players, compact and video disk players, equalizers, and other consumer consumer audio and video equipment (except speakers).....	8519.10.0000 8518.40.2000 8519.92.0000  8519.93.8000 8519.99.0030 8519.99.0070 8520.32.0000 8520.33.0000 8520.39.0000 8521.90.0000	8518.40.2000 8519.10.0000 8519.92.0000  8519.93.8040 8519.93.8080 8519.99.0030 8519.99.0045 8519.99.0060 8520.33.0020 8521.90.0000 8520.33.0040 8520.33.0060 8520.33.0070 8520.39.0000 8520.39.0020 8520.39.0050 8520.39.0060 8520.39.0070 8521.90.0000
3343104101	Single loudspeakers mounted in an enclosure.....	8518.21.0000	8518.21.0000
3343104104	Multiple loudspeakers mounted in an enclosure.....	8518.22.0000	8518.22.0000
3343104107	Other loudspeakers.....	8518.29.0000	8518.29.0000
3343104111	Microphones.....	8518.10.0000	8518.10.0020
3343104114, 117	Home-type electronic kits designed for consumer assembly and public address systems, including musical instrument amplifiers.....	8518.50.0000 8527.39.0000	8518.50.0000 8527.39.0020 8527.39.0040
334419E101	Earphones, headsets, and phonograph cartridges, pickups, needles, and styli.....	8518.30.2000 8522.10.0000	8518.30.2000 8522.10.0000

1/Source: 2002 edition, Harmonized System-based Schedule B, Statistical Classification of Domestic and Foreign Commodities Exported from the United States.

2/Source: Harmonized Tariff Schedule of the United States, Annotated (2002).

# Appendix.

## General CIR Survey Information, Explanation of General Terms and Historical Note

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### GENERAL

The CIR program has been providing monthly, quarterly, and annual measures of industrial activity for many years. Since 1904, with its cotton and fats and oils surveys, the CIR program has formed an essential part of an integrated statistical system involving the quinquennial economic census, manufacturing sector, and the annual survey of manufactures. The CIR surveys, however, provide current statistics at a more detailed product level than either of the other two statistical programs.

The primary objective of the CIR program is to produce timely, accurate data on production and shipments of selected products. The data are used to satisfy economic policy needs and for market analysis, forecasting, and decision making in the private sector. The product-level data generated by these surveys are used extensively by individual firms, trade associations, and market analysts in planning or recommending marketing and legislative strategies, particularly if their industry is significantly affected by foreign trade. Although production and shipments information are the two most common data items collected, the CIR program collects other measures also such as inventories, orders, and consumption. These surveys measure manufacturing activity in important commodity areas such as textiles and apparel, chemicals, primary metals, computer and electronic components, industrial equipment, aerospace equipment, and consumer goods.

The CIR program uses a unified data collection, processing, and publication system. The U.S. Census Bureau updates the survey panels for most reports annually and reconciles the estimates to the results of the broader-based annual survey of manufactures and the economic census, manufacturing sector. The manufacturing sector provides a complete list of all producers of the products covered by the CIR program and serves as the primary source for CIR sampling. Where a small number of producers exist, CIR surveys cover all known producers of a product. However, when the number of producers is too large, cutoff and random sampling techniques are used. Surveys are continually reviewed and modified to provide the most up-to-date information on products produced. The CIR program includes a group of mandatory and voluntary surveys. Typically the monthly and quarterly surveys are conducted on a voluntary basis. Those companies that choose not to respond to the voluntary surveys are required to submit a mandatory annual counterpart corresponding to the more frequent survey.

### NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS), 1997

The adoption of the North American Industry Classification System (NAICS) in the 1997 Economic Census has had a major impact on the comparability of current and historic data. Approximately half of the industries in the manufacturing sector of NAICS do not have comparable industries in the Standard Industrial Classification (SIC) system that was used in the past.

While most of the change affecting the manufacturing sector was change within the sector, some industries left manufacturing and others came into manufacturing. Prominent among those that left manufacturing are logging and portions of publishing. Prominent among the industries that came into the manufacturing sector are bakeries, candy stores where candy is made on the premises, custom tailors, makers of custom draperies, and tire retreading. The net effect of the classification changes are such that if the 1997 value of shipments data for all manufacturers were tabulated on an SIC basis, it would be approximately 3 percent higher.

Listed below are the NAICS sectors:

- 21 Mining
- 22 Utilities
- 23 Construction
- 31–33 Manufacturing
- 42 Wholesale Trade
- 44–45 Retail Trade
- 48–49 Transportation and Warehousing
- 51 Information
- 52 Finance and Insurance
- 53 Real Estate and Rental and Leasing
- 54 Professional, Scientific, and Technical Services
- 55 Management of Companies and Enterprises
- 56 Administrative and Support and Waste Management and Remediation Services
- 61 Educational Services
- 62 Health Care and Social Assistance
- 71 Arts, Entertainment, and Recreation
- 72 Accommodation and Food Services
- 81 Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

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The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

## FUNDING

The Census Bureau funds most of the surveys. However, a number of surveys are paid for either fully or partially by other Federal Government agencies or private trade associations. A few surveys are mandated, but all are authorized by Title 13 of the United States Code.

## RELIABILITY OF DATA

Survey error may result from several sources including the inability to obtain information about all cases in the survey, response errors, definitional difficulties, differences in the interpretation of questions, mistakes in recording or coding the reported data, and other errors of collection, response, coverage, and estimation. These nonsampling errors also occur in complete censuses. Although no direct measurement of the biases due to these nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is the imputing of data for nonrespondents, for late reporters, and for data that fail logic edits. Missing figures are imputed based on period-to-period movements shown by reporting firms. A figure is considered to be an impute if the value was not directly reported on the questionnaire, directly derived from other reported items, directly available from supplemental sources, or obtained from the respondent during the analytical review phase. Imputation generally is limited to a maximum of 10 percent for any one data cell. Figures with imputation rates greater than 10 percent are suppressed or footnoted. The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, because the actual yearly movements for nonrespondents may or may not closely agree with the imputed movements. The range of difference between the actual and imputed figures is assumed to be small. The degree of uncertainty regarding the accuracy of the published data increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

## DATA REVISIONS

Statistics for previous years may be revised as the result of corrected figures from respondents, late reports for which imputations were originally made, or other corrections. Data that have been revised by more than 5 percent from previously published data are indicated by footnotes.

## DISCLOSURE

The Census Bureau collects the CIR data under the authority of Title 13, United States Code, which specifies that the information can only be used for statistical purposes and cannot be published or released in any manner that would identify a person, household, or establishment. "D" indicates that data in the cell have been suppressed to avoid disclosure of information pertaining to individual companies.

## EXPLANATION OF GENERAL TERMS

**Capacity.** The maximum quantity of a product that can be produced in a plant in 1 day if operating for 24 hours. Includes the capacity of idle plants until the plant is reported to be destroyed, dismantled, or abandoned.

**Consumption.** Materials used in producing or processing a product or otherwise removing the product from the inventory.

**Exports.** Includes all types of products shipped to foreign countries, or to agents or exporters for reshipment to foreign countries.

**Gross shipments.** The quantity or value of physical shipments from domestic establishments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale or use. Shipments of products purchased for resale are omitted. Shipments of products made under toll arrangements are included.

**Interplant transfers.** Shipments to other domestic plants within a company for further assembly, fabrication, or manufacture.

**Inventories.** The quantity or value of finished goods, work in progress, and materials on hand.

**Machinery in place.** The number of machines of a particular type in place as of a particular date whether the machinery was used for production, prototype, or sampling, or was idle. Machinery in place includes all machinery set up in operating positions.

**Net receipts.** Derived by subtracting the materials held at the end of the previous month from the sum of materials used during the current month.

**Production.** The total volume of products produced, including: products sold; products transferred or added to inventory after adjustments for breakage, shrinkage, and obsolescence, plus any other inventory adjustment; and products that undergo further manufacture at the same establishment.

**Quantities produced and consumed.** Quantities of each type of product produced by a company for internal consumption within that same company.

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**Quantity and value of new orders.** The sales value of orders received during the current reporting period for products and services to be delivered immediately or at some future date. Also represents the net sales value of contract change documents that increase or decrease the sales value of the orders to which they are related, when the parties concerned are in substantial agreement as to the amount involved. Included as orders are only those that are supported by binding legal documents such as signed contracts or letter contracts.

**Quantity and value of shipments.** The figures on quantity and value of shipments represent physical shipments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and returns. Shipments to a company's own branches are

assigned the same value as comparable appropriate allocation of company overhead and profit. Products bought and resold without further manufacture are excluded.

**Stocks.** Total quantity of ending finished inventory.

**Unfilled orders (backlog).** Calculated by adding net new orders and subtracting net sales from the backlog at the end of the preceding year.

#### **HISTORICAL NOTE**

Data on radio and television receivers, phonographs, and related equipment have been collected by the Census Bureau since 1952. Historical data may be obtained from Current Industrial Reports (called Facts for Industry before 1959) available at your local Federal Depository Library.